

REMARKS

Claims 1-32 are currently pending. Claims 6 and 26 have been amended to correct certain formal deficiencies. No new matter was added. Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Reissue Application

The Office Action alleges that the reissue oath/declaration filed with this application is defective “because it fails to identify at least one error which is relied upon to support the reissue application.” However a correspondence dated November 4, 2004 and entitled COMBINED DECLARATION AND POWER OF ATTORNEY IN REISSUE APPLICATION, declares that

I believe the ‘568 patent, which matured from application Serial No. 09/884,229, filed on June 19, 2001, to be wholly or partly inoperative or invalid by reason of my claiming less than I had a right to claim in the patent.

This declaration was properly signed by attorney Mark Lappin for inventor Mark Dinsmore pursuant to a petition under rule 37 CFR 1.47(b). This petition was granted in a correspondence from the PTO mailed June 14, 2005 and signed by Christina Tartera Donnell, Senior Petitions Attorney, Office of Petitions. Applicants note that the above declaration conforms to the language suggested by MPEP § 1414, item 3, as excerpted in the Office Action. Accordingly, Applications request reconsideration and withdrawal of the finding that the reissue application is defective as failing to identify at least one error.

Claim Objections

Claims 6, 26, and 30 have been objected to on formal grounds due to antecedent basis problems. Claims 6 and 26 have been amended to obviate these issues. Accordingly, Applicants request reconsideration and withdrawal of the objection to claims 6, 26, and 30.

35 USC §102 Rejections

Claims 1-30 have been rejected under 35 USC § 102(b) as being anticipated by Oettinger et al. U.S. Patent No, 5,428,658 (henceforth “Oettinger”). Applicants traverse.

To anticipate a claim, a reference must teach each and every element of the claim. (MPEP § 2131). Independent claim 1 recites:

an electron source, responsive to optical radiation...for emitting electrons, the electron source including a thermionic cathode having an electron emissive surface; an optical delivery structure ...adapted for directing a beam of optical radiation transmitted therethrough to impinge upon a surface of said thermionic cathode, and wherein said beam of transmitted optical radiation has a power level sufficient to heat at least a portion of said surface to an electron emitting temperature so as to cause thermionic emission of electrons from said surface.

Independent claims 26, 31 and 32 include substantially similar limitations.

Oettinger fails to disclose directing a beam of optical radiation to impinge on the surface of a thermionic cathode with sufficient power level to heat at least a portion of the surface to a sufficiently high temperature to cause electron emission. To the contrary, Oettinger teaches that use of either a **current-driven** thermionic cathode or a **photocathode**. (Oettinger, column 9 lines 5-8). Oettinger teaches that in a current-driven thermionic cathode, an element is **resistively heated with a current** to provide a sufficiently high temperature to provide electron emission. (Oettinger, column 12, lines 7-18.) Oettinger further teaches that a photocathode is a **non-thermionic** cathode suitable for illumination with a laser or LED such that electrons are produced by “photoemission” (Oettinger, column 12 lines 19-23.) As noted in Applicants’ specification, such photocathodes operate to produce electrons by way of the quantum photoelectric effect and not through thermionic emission caused by heating. (Applicants’ specification, column 2, lines 29-53). To the contrary, typical photocathodes operate at temperatures several thousand degrees centigrade less than those required for thermionic cathodes. (Id.) Applicants can find no disclosure in Oettinger of the use of optical radiation to

heat a thermionic cathode to sufficient temperature for thermionic electron emission, as required by Applicants' claims.

In light of the above applicants submit that the proposed combination fails to disclose, each and every element of independent claims 1, 26, 31, and 32. Claims 2-24 and 27-30 depend directly or indirectly from independent claims 1 or 26, and therefore patentably distinguish Oettinger for at least the same reasons. Accordingly, Applicants request reconsideration and withdrawal of the rejection of claims 1-24, and 26-32 under 35 USC §102(b).

Allowable Subject Matter

Applicants thankfully acknowledge the indication that claim 25 would be allowable if not rejected based on the alleged defect in the reissue application discussed above. As there is no longer any proper basis for this rejection Applicants ask that claim 25 be allowed.

Conclusion

Applicant believes that there is no longer any proper basis for the rejections under 35 USC §102 or as being based on a defective reissue declaration. Applicant therefore submits that present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

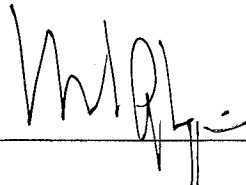
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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